GEOGRAPHICAL RECORD

AMERICAN GEOGRAPHICAL SOCIETY

Presentation of the Charles P. Daly Medal to Vilhjálmur Stefánsson; Meetings of December. At a monthly meeting of the Society on December 17, at the Engineering Societies' Building, 29 West Thirty-ninth Street, the Charles P. Daly Medal of the Society was presented to Vilhjálmur Stefánsson, the Arctic explorer.

President Greenough presided. After he had submitted the names, approved by the Council, of 21 candidates for Fellowship, all of whom were confirmed as Fellows of the Society, the award took place. In presenting the medal, President Greenough spoke as follows:

"I am charged tonight, as your representative, with the agreeable duty of presenting to the lecturer the gold medal of the Society, which bears the following inscription:

VILHJALMUR STEFANSSON
1918
HE LEARNED THE WAY OF LIFE
OF THE ESKIMO
AND IN A LONG AND HAZARDOUS JOURNEY
DISCOVERED NEW LANDS
BEYOND THE ARCTIC FRINGE OF AMERICA

"These words convey only a suggestion rather than a description of the remarkable work of the explorer, but they sufficiently indicate a distinction between what I may term the human and the scientific aspects of his performance. Each of these is entitled to the highest praise—but there is a dramatic action about the former which finds a parallel, as I think, only in the career of Dr. Livingstone in Africa. Both of the travelers alluded to cut loose from their base and trusted to their ability to find support in the regions they might visit. Both were supposed to have perished, as attested alike by rumor and by argument from experience. And both demonstrated the ability of the white man to adapt himself to any conditions under which a native race can subsist. This demonstration of Arctic potentialities is of absorbing interest and suggests the mournful reflection that many lives might have been saved in voyages like that of Sir John Franklin and of others who have succumbed to the privations of polar work.

"But the unique personal adventures of our guest must not be allowed to obscure the notable additions to geographical knowledge attained by the expedition. New lands were discovered and the boundaries of others were defined. Extensive soundings marked the limitations of the continental shelf and offered new light upon the form and extent of the Arctic basin. The American Archipelago is now much more definitely outlined, whilst the data collected as to the human geography, meteorology, botany, minerals, and animal life of the region will fill several volumes. It is the belief of our Council that the accomplishments of the enterprise are surpassed in importance or interest by few, if any, of the many memorable undertakings in the Arctic, and that the fame of its leader will be enduring. Nor can we omit a word of praise for the office of the Canadian Department of the Naval Service under whose general direction and with whose support the work was so splendidly carried through.

"And now, Sir, on behalf of the Society I beg your acceptance of this memorial of our admiration of your achievements and of our esteem for yourself, your comrades, and the neighboring government whose foresight and enterprise have been so highly rewarded. May it prove the presage of a long continuance of the agreeable and helpful relations which have existed between us in the past."

After saying a few words in acceptance of the medal, Mr. Stefánsson addressed the Society on "The Value of Northern Exploration."

At an intermonthly meeting one week before, on December 10, at which President Greenough presided, Major Douglas W. Johnson, of Columbia University and the Military Intelligence Division of the General Staff, gave an illustrated lecture entitled "Along the Front, from Belgium to the Balkans." The lecture dealt with Major Johnson's studies during the past year of the relation of topography to military strategy on all the principal sectors along the western front from the North Sea to the Aegean. This work was originally planned as part of the program of the Department of Exploration and Research of the Society. Later it was adapted to the needs of the military authorities of the Department of State.

Assumption of Publication of the *Journal of Geography* by the Society. With the first of the year the American Geographical Society has assumed management and publication of the *Journal of Geography*. Dr. Isaiah Bowman is Editor and Dr. G. M. Wrigley Associate Editor of the *Journal* under its new management. Founded in 1897 by Professor R. E. Dodge as the *Journal of School Geography*, the magazine was merged five years later with the *Bulletin of the American Bureau of Geography* and published under the present title. Eight years ago the *Journal* passed under the editorship and management of Professor R. H. Whitbeck of the University of Wisconsin.

For over twenty years the *Journal* has contributed in a very high degree towards the advancement of geography in our schools. The need that it has so well filled in the past is more urgent in the present, and the Society takes over the *Journal* at a critical time in the history of geographical education. As Professor Whitbeck says in his valedictory (*Journ. of Geogr.*, December, 1918): "We believe that the greatest epoch for American geography lies just ahead. We see evidences everywhere of new and widespread interest in world geography. If ever conditions were propitious for launching a great movement for more geography and better geography in American schools, those conditions are here today." Two articles in the January number of the *Journal* relate to these opportunities for geography: "Geography and Reconstruction in Education," by L. O. Packard of the Boston Normal School; and "A Campaign for Geography," by O. D. von Engeln of Cornell University. Other important articles in this number are "The Turk, Casual of Geography," by Leon Dominian, formerly of the Society's staff, and "The Great Lakes Waterway as a Civic and National Asset," by Eugene Van Cleef.

A movement of great significance for the future of geography in America is the recent foundation of the National Council of Geography Teachers. The organization of the Council was described by its secretary, George J. Miller, of the State Normal School, Mankato, Minn., in the *Geographical Review*, Vol. 1, 1916, pp. 363-365. The *Journal of Geography* has been adopted as official organ of the Council.

NORTH AMERICA

Changes in the Forest Area of New England Since 1620. At the time of the landing of the Pilgrim Fathers nine-tenths or more of New England must have been forested. The deforestation then begun continued steadily as the population increased so long as the region remained dependent on its own agricultural production. With the mid-nineteenth century opening-up of the Middle West and the evolution of New England as a manufacturing region deforestation was checked. In New England as a whole the agricultural area reached its maximum extent between 1870 and 1880, and, as unoccupied land here tends to revert to forest, the forest area has increased since that date. It is even reported that there has been an increase among the native wild life.

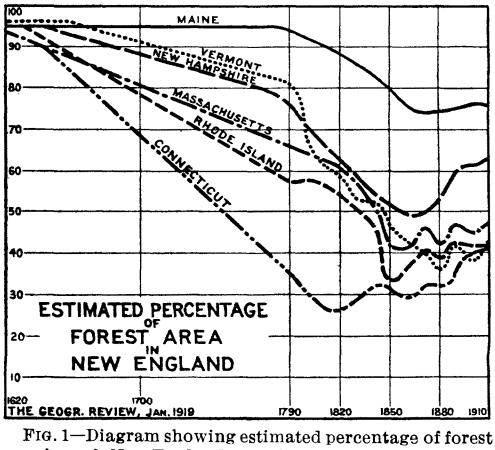

FIG. 1—Diagram showing estimated percentage of forest area in each New England state from 1620 to 1910. (Reproduced from the paper cited in the text.)

The quantitative change in the forest area has been worked out and graphically represented by R. M. Harper (Changes in the Forest Area of New England in Three Centuries, *Journ. of Forestry*, Vol. 16, 1918, pp. 442-452). Census statistics supply the basal data. Calculation proceeds on the assumption that, excluding the area originally treeless (5 per cent) and that occupied by towns, villages, etc. (1/5 acre per habitant), the land not in farms is forest. To this area is added that of the wood lots included in the farms. Complete data on farm land and wood lots, however, is only available for the years 1870, 1880, 1910. For other years as far back as 1850 the proportion of wood lots is deduced from the ratios in the known years. Beyond 1850 to the first Census year, 1790, population figures only are available. It is then assumed that the ratio of farm land is proportional to population, with modifications based on certain well-known tendencies. The ratio, for instance, tends to decrease with increase of industry. The forest

decline in Connecticut, where arose an early growth of manufacturing, was checked much earlier than in Maine.

The figures for 1910 show no state with a forest cover of less than 40 per cent: Maine still has 75 per cent. A check on the method employed in arriving at these estimates is afforded by results obtained by other means. R. S. Kellogg (*U. S. Forest Service Circular 166*, 1909) gives a higher percentage of woodland for Connecticut (52 per cent against 42 per cent) and a lower percentage for Massachusetts (39 per cent against 47 per cent): his other figures are substantially the same. These conclusions, of course, simply refer to areal extent and in no wise to the quality of the forest. A qualitative survey is the concern of a timber census, for which, it may be noted in passing, there is great need.

EUROPE

The Effect of Gunfire on the Rainfall of the British Isles. A recent statement from Dr. H. R. Mill, Director of the British Rainfall Organization, the leading authority on rainfall in the British Isles, gives an answer, as definite as is possible, to the much-discussed question of the effect of the gunfire in Europe upon the amount of precipitation in Great Britain (*Symons's Meteorol. Mag.*, Feb., 1918). Two districts are selected, southeastern England, which was nearest to, and the northwestern district (comprising stations from Sutherland and the Hebrides to the west coast of Ireland), which was farthest from the scene of the firing in Flanders. The monthly rainfalls from 1909 to 1917 are summarized, in percentages of the average. In the period before the war there were 14 dry or very dry months in southeastern England and 12 wet or very wet months. During the war there were 12 dry or very dry and 13 wet or very wet months. A single month transferred from one category to the other would bring about an equality or even a reversal. In the northwest, in the same two periods, very dry months were equally numerous, and there were no very wet months. Taking dry and very dry months together, there were 7 before and 14 during the war, and of wet months there were 14 before and 15 during the war. Dr. Mill points out that much emphasis has been laid on the relative wetness of the years 1915 and 1916 in southeastern England, but this record should be considered in connection with the fact that the year 1917, when the war was in a very intense phase, had a nearly normal rainfall. R. DEC. WARD

ASIA

The Origin of the Chinese. In a recent article (The Origins of the Chinese, *Amer. Journ. of Phys. Anthropol.*, Vol. 1, 1918, pp. 183-212) Mr. E. T. Williams, Chief of the Division of Far Eastern Affairs of the State Department, discusses the origin of the Chinese out of long familiarity with the country, people, and literature. He takes up in turn the three most prevalent theories, i.e. that the Chinese migrated from the Indo-Chinese peninsula; that they originated in Central or Western Asia; and that the race is autochthonous. (For a discussion of these different theories see Comprehensive Geography of the Chinese Empire, by L. Richard; Western Origin of the Early Chinese Civilization, by Terrien de Lacouperie; The Origin of the Chinese People, by J. Ross; China, by F. von Richthofen, and Frederick Hirth's article on Chinese Origins in the Encyclopaedia Britannica.) The second of these hypotheses the author believes is best supported by available evidence. That the movement of peoples in China and Indo-China has been generally from north to south is a widely accepted opinion. This belief has furnished one of the strongest arguments for postulating a Central or West Asiatic origin of the present prevailing race. Within the past few decades studies concerning the Sumerians of the Euphrates basin have brought out unexpected similarities between this West Asiatic culture and the earliest civilization of the Chinese, particularly in vocabulary and ideograms. The explorations of Sven Hedin, Stein, Pumpelly, and Ellsworth Huntington reveal a possible motive for migration in the climatic changes which have taken place in Turkestan.

Further to strengthen this theory Mr. Williams adds the testimony of ancient Chinese traditions, embodied in their great classics. The geographical and statistical description of the empire, the so-called "Tribute of Yu," probably compiled from data earlier than 2300 B. C., includes account of a region in the west which would seem to have been occupied many centuries earlier by the Chinese. Other traditions are found to point to the western origin of the race. Moreover Mr. Williams believes that in references to the "I" peoples from which early Chinese emperors sprung, there is no implication that these tribes were "wild" or "barbarians," as their name has usually been translated, but that, on the contrary, they were already possessed of an advanced culture when they first appeared in Chinese history, a culture which he supposes they must have brought with them from an earlier abode in the west.

The geography of northwest China lends support to this view. It is scarcely conceivable that a great migration could have crossed the Kuen-lun range of mountains, over which exist few passes and only extremely difficult trails. This barrier would have effectually prevented any extensive movement into the upper valley of the Hoang and the Wei Rivers, where it is generally admitted the Chinese first appear on the scene and from which they spread over the rest of the empire. On the other hand, access from the westward is easy. In that direction the important natural highway leading from the Wei valley, through the Yu-men or Jade Gateway at the base of the Nan Shan range, toward eastern Turkestan, is known to have been in use for many centuries. Along this route a migrating people could easily move, either from the shepherd country of the arid uplands or from the crowded oases of a diminishing tillable area farther west.

WORLD AS A WHOLE AND LARGER PARTS

Man's Distribution Over the Earth. The last contributions to the *Annales de Géographie* of the late Professor Vidal de la Blache, the dean of French geographers, have for their theme certain principles governing man's distribution over the earth. The two articles are "La répartition des hommes sur le globe" (March and July, 1917), and "Les grandes agglomérations humaines: Afrique et Asie; Europe—Remarques générales; Régions méditerranéennes" (November, 1917, March and May, 1918).

Darwin's phrase describing the dispersal of man as "vast and precocious" expresses no less the foundation of his present-day distribution. To remark on man's ubiquitousness is trite; yet there is really something astonishing in his occupation of the fringes and the undesirable corners of the earth. A surprising tide of human life beats against the inhospitable borders of the North Polar regions. In the High Andes of southern Peru there are permanent habitations nearly three miles above sea level in an atmosphere rarefied to a pressure not much more than half normal. Tuareg tribes of the Sahara, numerically small as they are, are yet in excess of the resources of their domain. On the other hand the comparatively low population density of certain areas is not in relation with their value for the support of man. The causes of these anomalies are doubtless many and involved, but they must be credited in part to the sporadic nature of man's original dispersal, a dispersal, it may be noted, that owes much to the Promethean gift, the universal possession of mankind. Early human occupation of the earth must have been attenuated, as it was widespread. Probably its highest density would be reached along shores where fishing supported unusual numbers; the enormous kitchen middens existing on various coasts seem to offer evidence in point. Real condensation of human groups, however, could come only with sedentary occupation of the soil. When man began the accumulation of a patrimony he could obey the command to "increase and multiply."

In two of the world's three great areas of dense population the command has been obeyed from ancient times, that is in India and in China proper with Japan. Out of the estimated world total (1913) of 1,631,500,000 China had 326,000,000 and Japan 52,000,000, India 302,000,000. Europe, the modern unit of high population density, had 448,000,000. Growth of the East and the West, of the old and the modern agglomerations, has proceeded along lines as essentially different as are their geographical settings.

The Asiatic agglomerations were born and have flourished in a zone roughly defined by the parallels of 10° and 40° north latitude. India and China are countries of the monsoon, with temperatures and rainfall favorable to the growth of vegetation useful to man. Botanical research has shown that, with the Sudan and the Mediterranean, these are the regions that have contributed the greatest proportion of our alimentary plants. Bound up with their human exploitation is the management of the water supplied directly by the periodic rains and indirectly by their associated floods. The practice of irrigation on larger or smaller scale is universal, from its restrained application in the oases fringing the mountain periphery to the unbounded possibilities in the plains of the Ganges and Hoang-ho. It is the outstanding feature of Asiatic cultivation.

The cultivation that follows the great rivers, progressively expanding from the intermontane basins to the great alluvial plains of the lowlands, is a concomitant of the human movements of sedimentation and expansion that have pursued the same course. From early times the two countries of the great Asiatic agglomeration have been regions of attraction; they form a *zone of increment* where man's labor brought prompt and ample reward. Chinese tradition points to an origin in the west, and in fact the bonds with the Central Asian oases through Kansu and Shensi have never been broken. Human occupation of the great alluvial plains has been progressive: the deltaic lands, so responsive when once brought under control, demand the collective work only possible under a high organization possessed of infinite human resources. To "increase and mul-

tiply'' here was a necessity of effective occupation. Economic compulsion transformed into a religious function cult of the family—marriage and procreation: population needs became an affair of the state.

Like China, India has seen progressive human enrichment. The Punjab matches the ''historic vestibules'' of Kansu and Shensi as a transition country. As in China, flow of the human currents has left recognizable traces. A sort of religious consecration attaches itself to the land where the poor and laborious populations from the arid belt entered into the richer and fuller life of the monsoon zone. The upper Ganges to Benares is the blessed country of the Brahmin. Here the village type conserves in almost complete purity its Aryan character.

The great Oriental agglomerations cease more or less abruptly at about the fortieth parallel, that is approximately the latitude where the European mass begins. The European block of dense population extends northward to the sixtieth parallel, where it is characteristically demarcated by a line of great towns, Bergen, Christiania, Stockholm, Helsingfors, Petrograd. On the east it is approximately defined by the limit of sedentary population and the line of towns, Kazan, Samara, Saratov, Astrakhan. Evolution here has been much more complex.

The Mediterranean must early have figured as a zone of increment, approaching the monsoon regions in favorable conditions. It is distinguished from them climatically by occurrence of the rainy season during the winter, whence cultivation has taken on a different aspect. Mediterranean culture, however, has arisen in contact with that of the ancient centers of the Near East, Egypt and Mesopotamia, and has learned much from them. While irrigation is employed in the Mediterranean zone of summer drought, the distinguishing feature of cultivation is related to the humid subsoil, a reservoir filled by the winter rains, a resource that can be tapped by deep-rooted forms of vegetation. The Mediterranean is the land of fruit; tree cultivation is the basis of the early dense centers of population. Under propitious (historical) circumstances this population has always tended to increase; the proletariat of southern Italy presents certain analogies with the surcharged populations of the Orient.

Yet the European countries where man is enfranchised from effort are the exception. Away from the Mediterranean border the needs of shelter, clothing, heating, and lighting singularly complicate the problem of existence and leave little room for the *far niente* of the lands of increment. The principle of growth of these greatest agglomerations, so recent in origin, is the development of mechanical invention. Accompanying are two distinguishing phenomena, emigration on a large scale, an epochal event in the history of man's distribution, and the growth of urban life.

GEOGRAPHICAL NEWS

PERSONAL

PROFESSOR EDWARD W. BERRY, professor of paleontology, and DR. JOSEPH T. SINGEWALD, JR., professor of economic geology, of the Johns Hopkins University, will sail in April for South America, where they will spend six or seven months in geological explorations in the Andes of Peru, Bolivia, and Chile. The expedition will be made under the auspices of the George Huntington Williams Memorial fund which was recently provided through the generosity of Mrs. George Huntington Williams in memory of her husband, who at the time of his death was head of the department of geology at the Johns Hopkins University.

DR. FILIPPO DE FILIPPI was awarded its Prix Tchihatchef by the Academy of Sciences of Paris on December 2, 1918, in recognition of the geographical results of his expedition to the Karakorum and other regions of Central Asia in 1913-14.

MR. FREDERICK K. MORRIS of Columbia University gave an address on ''The Fourth Year of the War'' at the general meeting of the New York Academy of Sciences on January 20. The address dealt with the relation of topography to the military campaigns.

OBITUARY

DR. CHARLES R. VAN HISE, president of the University of Wisconsin and eminent as a geologist, died on November 19 at the age of 61 years. Among Dr. Van Hise's numerous fundamental publications, those of greatest interest to geographers are: ''The Geology of the Lake Superior Region'' (with C. K. Leith), *U. S. Geol. Surv. Monograph 52*, 1911; ''The Iron-ore Deposits of the Lake Superior Region,'' *U. S. Geol. Survey 21st Annual Report for 1899-1900*, Part III, Report c, 1901; ''The Conservation of Natural Resources in the United States,'' New York, 1910.